Unit
A

Integrating
Word and Excel

Objectives

- ► **Understand Integration**
- ► **Open multiple programs**
- ► **Copy Word data into Excel**

Now that you have experienced the power of Word and Excel, it is time to learn how to integrate these two programs. When you integrate programs, you combine information from the output of the programs without retyping anything. ✎ Alice Wegman is a marketing manager for MediaLoft, a nationwide chain of bookstore cafés that sells books, CDs, and videos. Five of the MediaLoft stores noticed that they had an increase in sales soon after they started promoting MediaLoft's participation in a national literacy program. Alice collected the spring quarter sales data for the five stores and compiled this information in a Word document. She decides she wants to communicate this data graphically using Excel charts, so she needs to copy the data to an Excel workbook.

Understanding Integration

Programs in Microsoft Office are designed to work together. The ability to use information across multiple programs, or **integration**, makes it possible to share data among documents and between coworkers. The file from which the information is copied is the **source file**. The file that receives the copied information is the **destination file**. For example, charts created in an Excel worksheet, the source file, can be copied to and edited in a Word document or a PowerPoint presentation, the destination file. Alice decides to review some of the ways that data can be integrated among the Office suite programs and with other programs.

Details

You can use Microsoft Office integration features to:

► **Copy and paste data**

You can copy information—whether it's text, values, or objects—created in one program into another program using the Copy and Paste commands. You can copy and paste one item at a time using the Windows clipboard, or, if the Office Clipboard task pane is open, you can copy and store up to 24 items. See Figure A-1.

► **Drag and drop data**

You can also copy selected text, values, or objects into other programs by using the drag-and-drop method. Once the files are opened and the program windows are arranged so that both the source and destination files are visible, you can press and hold [Ctrl] and drag a selection from the source file into the destination file.

► **Link and embed objects**

If you include data that is subject to change in multiple files, you should link the object you want to copy. A **linked** object maintains a connection to the source file so that the linked objects in both the destination file and the source file are updated when the data is changed in the source file. An **embedded** object maintains a link to the source program, but not to the source file. You can double-click an embedded object to open the source program and edit the object. The source file remains unchanged, however.

► **Import and export text and graphics**

You can also use files created in programs that are not part of the Office suite by using **filters**, programs built into the Office suite that convert files created in another format.

► **Create hyperlinks**

You can include hyperlinks in your files to other places in your files, other files, or a location on the Internet. Figure A-2 shows the Insert Hyperlink dialog box, which is used to create a hyperlink. When you click a hyperlink, the file or Web page that the hyperlink is connected to opens.

► **Work efficiently using Office eServices**

Microsoft maintains a Web site that offers a variety of tools—many of them free—that makes it easy to get the most out of Office, including sharing information. This site, shown in Figure A-3, changes often and offers many exciting features.

► **E-mail files**

You can share Office files by sending them as attachments to an e-mail message. By clicking the E-mail (as Attachment) button on the Standard toolbar. This opens your e-mail client and attaches the file to the e-mail message. By sending a file and using Office tools such as Tracking and Comments, you can easily incorporate input from your coworkers into your documents.

► **Collaborate online**

E-mail is one form of online collaboration. You can also use Office program features to share and review documents accessed by multiple users, and you can hold online discussions.
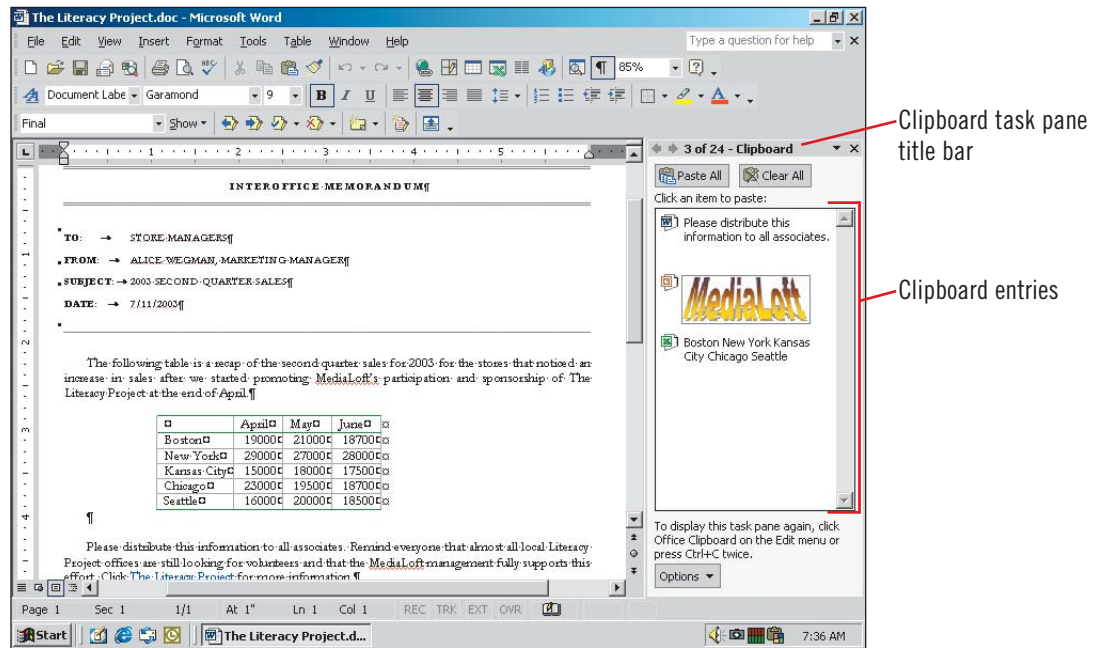
FIGURE A-1: Entries in Office Clipboard

Clipboard task pane title bar

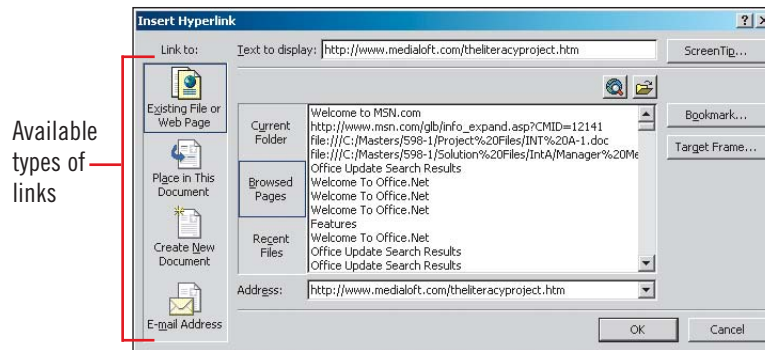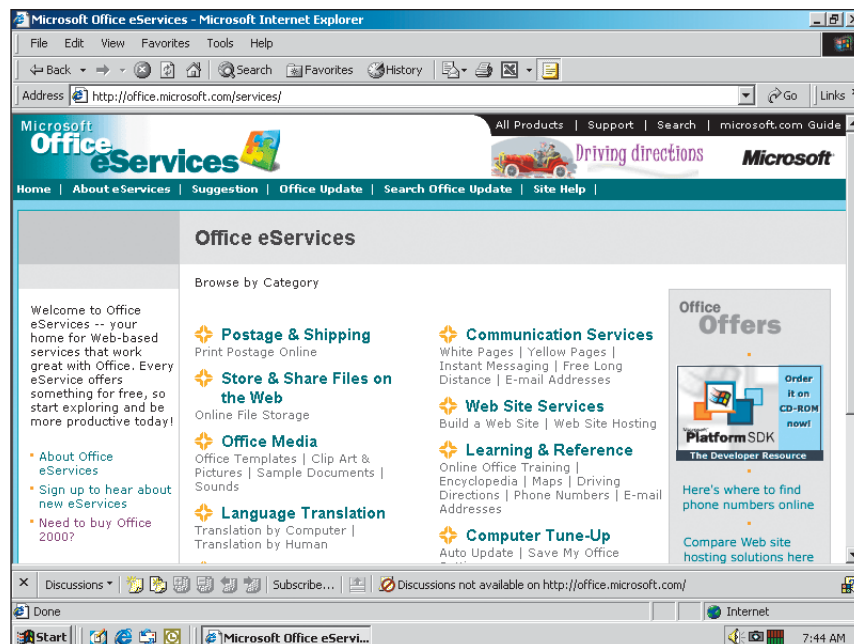Clipboard entries

FIGURE A-2: Insert Hyperlink dialog box

Available types of links

FIGURE A-3: Microsoft eServices on the Web

Opening Multiple Programs

When you are integrating information from one program into another, it is often necessary to have more than one file in more than one program open at the same time. The Windows environment gives you the ability to have more than one program open at a time, and to view them on the same screen simultaneously. This ability is sometimes called **multitasking**. Before integrating the data, Alice starts both Word and Excel. To make integrating the data easier, she aligns each program window side by side on the screen.

Steps 1 2 3 4

1. Click the **Start button** on the taskbar, point to **Programs**, then click **Microsoft Word** in the Program list
A blank Word document opens.

2. Click the **Minimize button** in the program window
The Word program window shrinks into a program button on the taskbar. Sometimes the taskbar is hidden.

3. If necessary, move the mouse pointer to the bottom of the screen
The taskbar appears.

4. Click **Start** on the taskbar, point to **Programs**, then click **Microsoft Excel**
A blank Excel workbook opens. The taskbar displays program buttons for Word and Excel, and the button for Excel is a lighter gray, as shown in Figure A-4. The light gray color of the Excel program button indicates that Excel is the active window.

5. Click the **Word program button** on the taskbar
The Word window is maximized and Word becomes the active program. The Excel window is still open, but it is not active. You want to see both windows at the same time.

6. Right-click a blank area on the taskbar
The taskbar shortcut menu appears.

7. Click **Tile Windows Vertically** on the shortcut menu
The two program windows each occupy half the screen. Compare your screen to Figure A-5. The title bars of both windows are gray, and both program buttons on the taskbar are dark gray, indicating that neither program window is active.
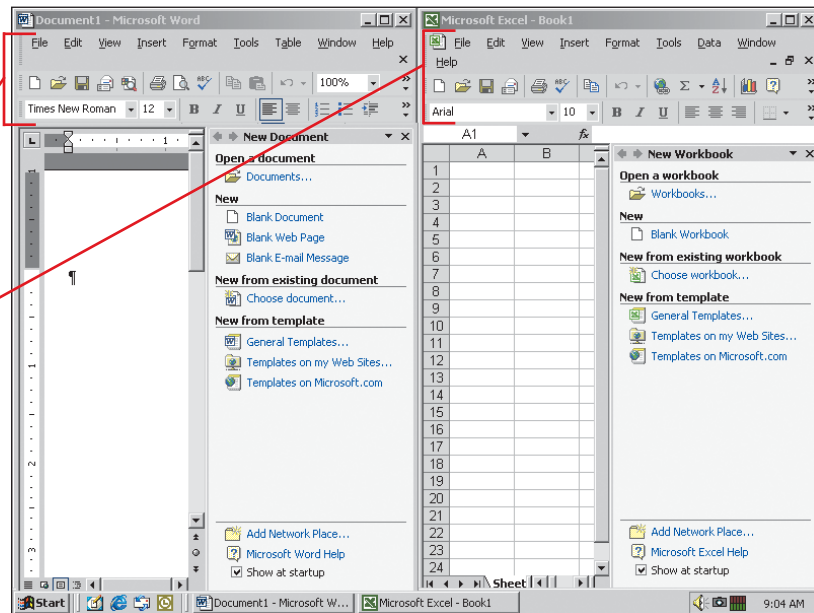
FIGURE A-4: Excel workbook active and Word document inactive

Active program
button is light gray

Dark gray button
indicates program
is open but inactive
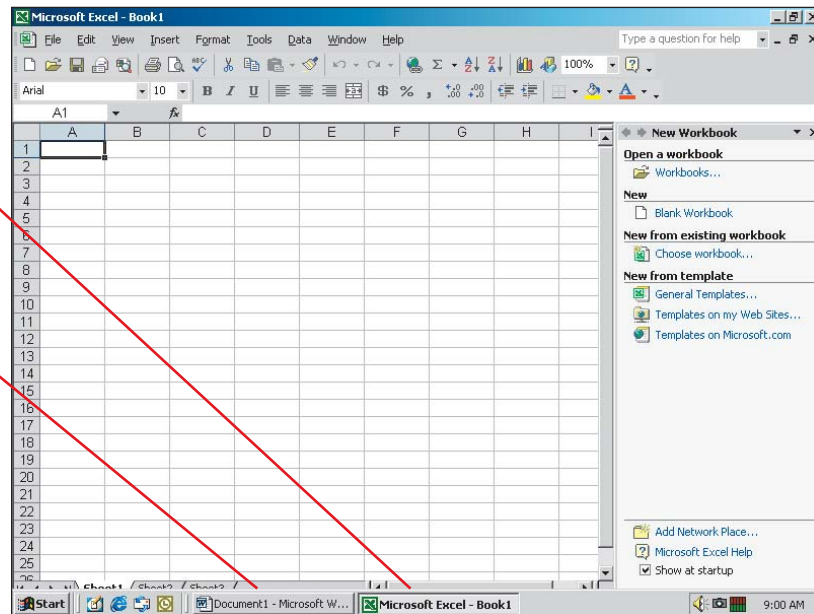
FIGURE A-5: Word and Excel windows open

Each program
displays its own
menu bar and
toolbars

CLUES TO USE

Using shortcut keys to switch between open programs

You can switch between open programs by clicking the program buttons on the taskbar or by using the shortcut key combination [Alt][Tab]. Pressing [Alt][Tab] causes the icons and names of open programs (whether or not they are minimized) to appear in the center of the screen, as shown in Figure A-6. To see this on the screen, press and hold [Alt], then press and release [Tab]. If more than one program is open, press and release [Tab] again while still holding down [Alt] to move the selection box to the next icon in the center of the screen. When the program you want to activate is selected, release [Alt].

FIGURE A-6: Using [Alt][Tab] to switch among open programs
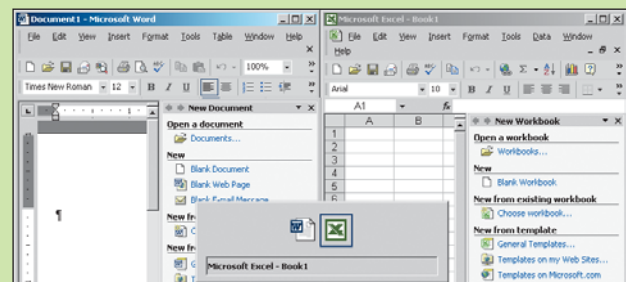
Copying Word Data into Excel

Moving or copying information from one program to another is just like moving or copying information within a single program. You can use the Cut, Copy, and Paste commands; buttons on the toolbars; or the drag-and-drop method to move or copy information. ✏️ Alice typed a memo to the five store managers that includes a Word table containing the spring quarter sales data for all five stores. Alice wants to copy the data from the Word table into an Excel workbook. Later, Alice will be able to create the charts she needs once the data is copied into Excel.

Steps 1 2 3 4

1. Click anywhere in the **Word program window** to make it active
   Clicking in a window makes the window active.

2. Open the file **INT A-1** from the drive and location where your Project Files are stored, then save it as **Manager Memo**
   Once the document is open, it can be saved to the location where your Project Files are stored. Manager Memo appears in the Word program window in Print Layout view.

3. Replace Alice Wegman's name in the From line with your name

4. Scroll down until you can see the table and the body of the memo, then click the **right scroll arrow** on the horizontal scroll bar so you can see the entire table, as shown in Figure A-7
   The Word document is the source file, and the blank Excel workbook is the destination file.

5. Position the pointer in the selection bar next to the top row of the table until the pointer changes to ⟋, press and hold the mouse button to select the top row of the table, drag the pointer down until all of the rows are selected, then release the mouse button

6. Press and hold **[Ctrl]**, click in the table so the pointer looks like ⬚, drag the pointer to the Excel worksheet, position the outline of the table in the range A1:D6 as shown in Figure A-8, then release the mouse button and **[Ctrl]**
   The information in the Word table is copied into the Excel worksheet, as shown in Figure A-9. Using drag and drop is the easiest way to copy information from a source file to a target file. You can now work with the data in the Excel workbook.

7. Click the **Save button** 💾 on the Excel Standard toolbar, then save the workbook as **Manager Sales** in the location where your Project Files are stored

8. Close the Manager Sales workbook and exit Excel

9. Close the Manager Memo document and exit Word without saving changes

Table in memo

Blank worksheet
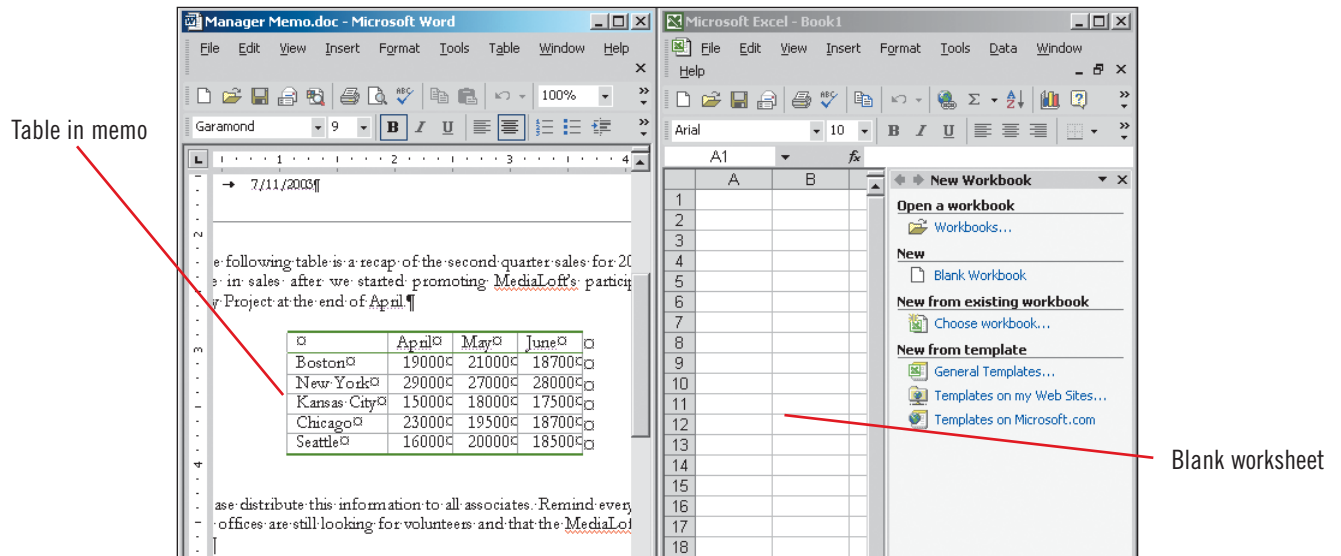
FIGURE A-8: Word text dragged and dropped into an Excel worksheet

Drag and drop copy pointer

Outline of destination
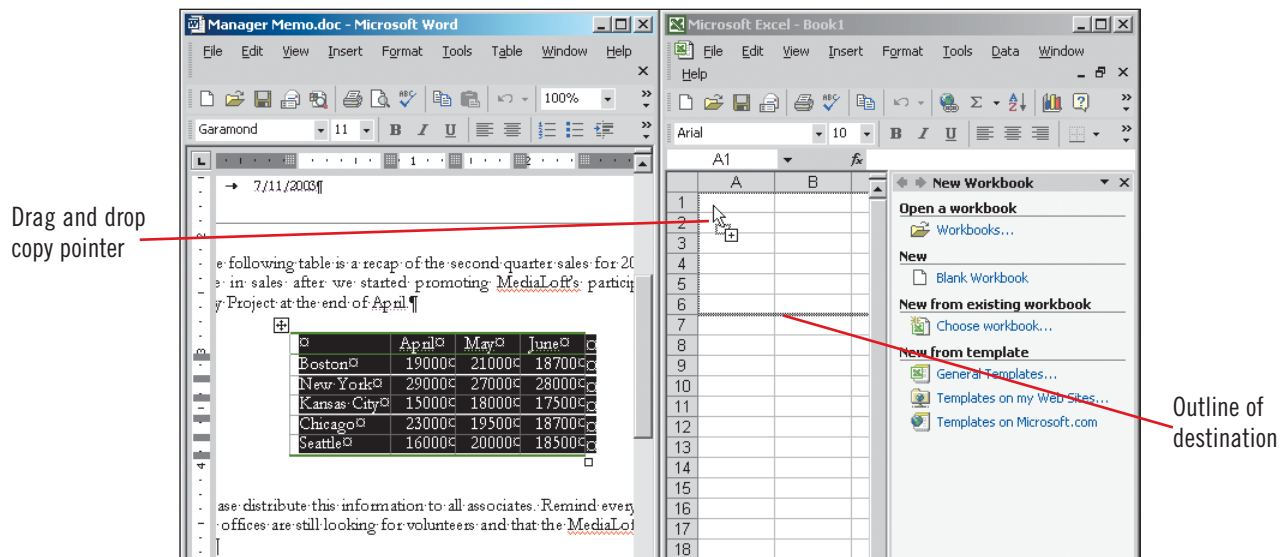
FIGURE A-9: Word table data copied into an Excel workbook

Destination file data

Source file data

Integration
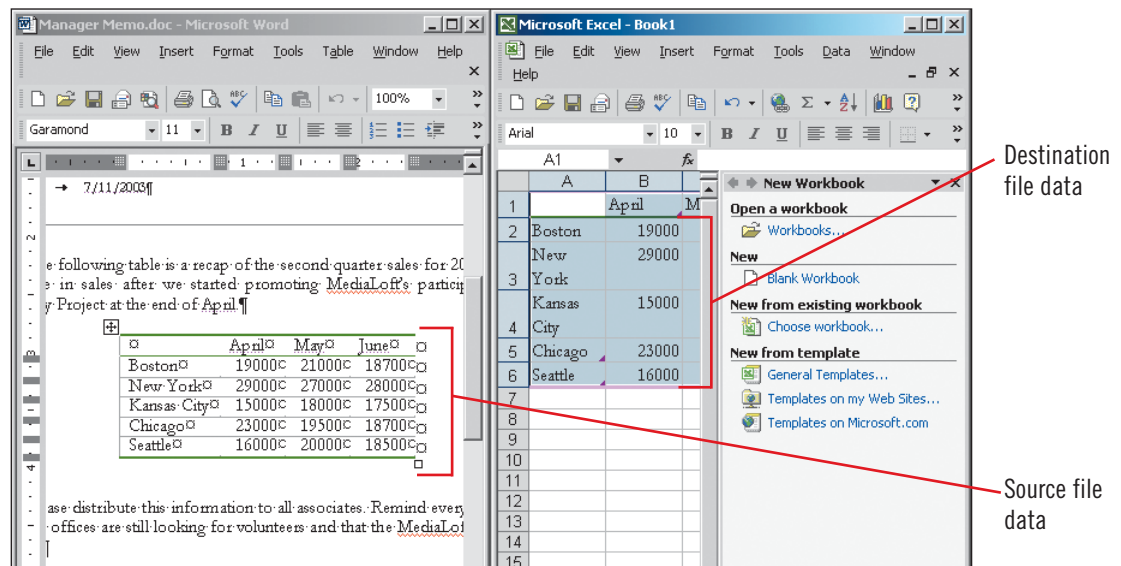
▶ Independent Challenge 1

The Hispanic Chamber of Commerce realizes that to improve their advertising coverage, they need to hire an outside consultant. A list of promising consultants is being assembled by other Chamber members. Your job is to create a memo that gives them an overview of the Chamber's advertising efforts.

    a. Start Excel, open the Excel file INT A-2 from the location where your Project Files are stored, then save it as **Chamber Statistics**. Start Word, open the Word file INT A-3 from the location where your Project Files are stored, then save it as **Chamber Consultants**.

    b. Examine the Chamber Consultants document and determine what additions you need to make to best inform the prospective consultant.

    c. Examine the chart in the Chamber Statistics workbook. Do you think you can use this chart within the memo, or do you need to create another type of chart to better convey the information? Can you add any enhancements to the chart to make it clearer?

    d. The memo to the board should contain three charts. Create the additional charts you need in Excel; for example, you can create a column chart that shows how much money is spent on each type of advertising, or a bar chart showing the different types of advertisements and the money spent on each one. Add any enhancements, such as text annotations and arrows, that will call attention to the charts in the memo.

    e. Create the document text to accompany each chart, then copy the charts into the document.

    f. Update the date in the Chamber Consultants document to reflect the current date and replace the text after FROM with your name, then preview the document and print a copy.

    g. Save and close the document and the workbook, and exit both programs.

ⓔ Independent Challenge 2

MediaLoft is considering expanding its stores in the United Kingdom. Before Alice Wegman hires a marketing firm to target this area, she wants to learn about this country's demographics. She has asked you to use the Web to find census data for the United Kingdom, and then prepare a synopsis of the information.

    a. Connect to the Internet and use a search engine to locate Web sites that have information on the United Kingdom census data. If your search does not produce any results, you might try the following sites:
        www.cia.gov/cia/publications/factbook/index.html
        www.felixent.force9.co.uk/europe/uk/07.html

    b. Locate and print data that details age distribution by gender—that is, the percentage of men and women in different age brackets—then disconnect from the Internet.

    c. Start Excel, then create a workbook named **Population Projections**.

    d. Enter data for the information on age distribution by gender, adjusting column widths as necessary.

    e. Format the statistical data using the comma format showing no decimals.

    f. Create a 3-D column chart that graphically describes this data.

    g. Start Word, then create a document named **Population Analysis**.

    h. Create original text that explains the data and the chart you created in Excel.

    i. Copy and paste the Excel data and chart into the Word document.

    j. Include any links that you used to get your data.

    k. Copy and paste the Excel chart into the Word document.

    l. Add your name as the last line in the document, then save and print your work.

    m. Close the document and the workbook, and exit both programs.